## WHAT IS CLAIMED IS:

- A device manufacturing apparatus which has a plurality of objects to be temperature-adjusted, comprising
- a plurality of temperature adjustment systems which respectively temperature-adjust the plurality of objects to be temperature-adjusted.

wherein said plurality of temperature adjustment systems include

- a first temperature adjustment system which uses any one coolant selected from the group consisting of pure water, a fluorine-based inert solution, a gas, and an antifreeze, and
- a second temperature adjustment system which uses

  any one coolant which is selected from the group

  consisting of pure water, a fluorine based inert

  solution, a gas, and an antifreeze and is different

  from the coolant used by the first temperature

  adjustment system.
- 20 2. The apparatus according to claim 1, wherein the first temperature adjustment system uses pure water as a coolant and has an impurity removing unit which removes an impurity in the pure water.
- 3. The apparatus according to claim 1, wherein the
  25 first temperature adjustment system is constituted by a
  closed path.
  - 4. The apparatus according to claim 1, wherein at

least some of said plurality of t mperature adjustment systems are arranged to operate independently.

- 5. The apparatus according to claim 1, wherein each of said plurality of temperature adjustment systems includes
- a temperature detection section which detects a temperature of a coolant, and
- a temperature controller which controls the temperature of the coolant on the basis of a temperature detected by the temperature detection section.

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- 6. The apparatus according to claim 1, wherein the apparatus is configured as an exposure apparatus further including an exposure section which exposes a substrate to a pattern.
- 7. The apparatus according to claim 6, wherein the exposure section includes
- a projection system which projects the pattern onto the substrate, and
- a stage device which has a driving section, and the first temperature adjustment system is arranged to temperature-adjust the driving section, and the second temperature adjustment system is arranged to temperature-adjust the projection system.
- 25 8. The apparatus according to claim 6, wherein said plurality of temp rature adjustment systems include a third t mperature adjustment syst m which

temperature-adjusts temperature adjustment air that circulates through the exposure section, and the third temperature adjustment system is arranged to use, as a coolant for temperature-adjusting the temperature adjustment air, a coolant different from a coolant used by the first and second temperature adjustment systems.

- 9. A device manufacturing method comprising a step of processing a substrate by a device manufacturing apparatus as defined in claim 1.
- 10 10. A device manufacturing method comprising a step of transferring a pattern onto a substrate using a device manufacturing apparatus as defined in claim 6.